

# VEREIN FÜR BEWEGUNGSFORSCHUNG e.V. INSTITUT FÜR STRÖMUNGSWISSENSCHAFTEN

HERRISCHRIED IM SÜDSCHWARZWALD

## Conditions for analysis of samples using Extended Sensory Analysis

### Why extended sensory analysis?

The question of the quality of food or water samples requires careful preliminary considerations. What exactly is the aim of analysis? Mostly, the amount of chemical ingredients is examined, i.e. quantitative parameters of the samples are determined. Together with further analyses, these allow an assessment of undesirable effects, and in the case of high concentrations, of toxic effects. The absence of such properties, however, does not directly result in high quality. If one considers the human being as a consumer of food or water, the presence of positive effects can be demanded, i.e. influences on the test person that strengthen and support him or her and his or her life forces with the simultaneous absence of impairing effects.

How can the consumer arrive at such assessments?

### Sensory analysis

Sensory analysis of food uses the abilities of trained tasters to characterise a sample. In this process, samples are ingested under standardised conditions and their sensory qualities are described such as sour, sweet, salty, bitter, bland, earthy, fishy, medicinal, etc.<sup>1</sup> However, other describable qualities can also be perceived. Samples can be characterised as full-bodied, poor, light, old, fresh to light, heavy, moving, constricting, solidifying, widening, warming or opening, which is not taken into account in the test methods mentioned. These and similar descriptions are nonetheless used in the food sector, e.g. when tasting wines. Especially in samples with low taste qualities, such as water samples, perceptions of the latter type occur predominantly, while the usual taste perceptions are only detectable to a small extent.

Further training of perceptual abilities makes it possible to achieve more refined, characteristic descriptions of many such qualities of food as well as of water samples. For the a more complete characterisation of samples, it thus seems justified to take into account all objectifiable perceptions, even if these are initially not yet assigned to known senses.

### Extended sensory analysis

The method of extended sensory analysis, which extends the sensory test, takes into account and describes all received perceptions of the test person occurring in the course of the analysis. Here, perceptions by the test person which occur additionally or differently in the comparison before - after are noted and verified by repeated executions in the initially blinded or partially blinded analyses under standardised conditions and calibration of the perceptions with standard samples. The perceptions are recorded as unprejudiced and objectively as possible, initially in a purely descriptive way and without making a value judgement or an assignment to known senses, neuronal changes or metabolic activities.<sup>2</sup> This investigation makes it possible to characterise effects beyond the sensory qualities, which emanate from the samples and become active in the

---

1 Sensory analysis of food is validated by certain EU norms, e.g. EN ISO 4120:2008, Sensory analysis - Methodology - Triangle test, EN ISO 5492:2010, Sensory analysis - Vocabulary

2 Further explanations are to be found in: Dorian Schmidt (2014)

organism and body of the test person. This also makes it possible to record influences on the more holistic life force situation.

### **Procedure**

Before the start of analyses, a situation of inner calm and openness is established by the testing person. All perceptions occurring in this situation are noted (=base situation). The sample or the reference sample is first taken by swirling it around in the mouth several times. All new or changed perceptions in contrast to the reference sample are observed and noted. The examination of new samples is blinded or partially blinded with subsequent partially blinded or unblinded repetition at least three times. The perceptions that occur repeatedly in all trials are scored.

Occurring perceptions can often be assigned to certain basic patterns, which can be compared with those of known, similar samples. Perceptions that occur repeatedly and reliably in comparable samples can be described as species-typical and defined as reference samples. Perceptions that deviate from this can be described as a special expression of this particular sample. In addition, mental perceptions or perceptions of changes with regard to the subject's consciousness are taken into account. In a second step, the established perceptions are compared with examination results of known samples and a more detailed description of the effect and, as far as possible, assessment is derived from this.

### **Limits of the information possibilities**

The result of the examination represents a one-time, selective view of the sample with the help of this method. It is recommended to deepen this by further examinations carried out at different intervals and to extend the results by further methods for examining the sample.

### **Orders and Lab Dates**

The Institute of Flow Sciences is a non-profit research institute, not a commercial provider of product testing services. We are pleased to conduct analyses and provide consultation. In order to schedule our laboratory capacities to ensure that samples are analysed in the freshest possible condition we require firmly agreed schedules. We conduct the analysis only after an order complying with these Conditions for Analysis has been made in writing, dates agreed and an advance payment received. We do not investigate samples received without prior notice. The agreed dates are binding for both parties. If scheduled samples have not arrived by the agreed date and were not cancelled by the Friday of the preceding week the Institute of Flow Sciences is relieved from the obligation and the advance payment is not remitted. If the analysis is reconsidered new dates must be arranged and new samples should be taken.

### **Sampling and Containers**

Type and timing of the samples and analyses must be agreed on in advance. We provide the client with the required bottles complying with our laboratory standards, without which we cannot ensure comparability with other water samples. If, against our advice, the client insists on supplying samples in other bottles he or she is responsible for all resulting consequences including restricted applicability of the results. Please follow our *Instructions for Taking and Sending Water Samples*. The bottles and the accompanying delivery notes must be labelled according to those instructions.

If the samples need to be treated specially in terms of packaging, storage, handling, etc. this must be stated in the order.

We conduct the investigations with the utmost of care, but without guarantee. We cannot

be held responsible for deficiencies or damage caused by unsuitable filling and packaging, contamination of samples or improper transport.

### **Declaration of Purity of Samples**

The client must confirm that water samples are equivalent to pure drinking water in hygienic and toxicological terms. Any deviations must be stated in the order, independent of whether the water samples are coded. The client is liable for any direct or indirect expenses or damages that may be suffered by us or our staff through handling undeclared substances or samples with incorrect declarations. We reserve the right to refuse to conduct an investigation where we have hygienic or toxicological misgivings or doubts about whether the sample is of drinking water quality.

### **Prices**

The price for an examination with extended sensory analyses per sample delivered to our institute is currently **€260.00 plus VAT**, including provision of sample bottles if necessary, a short consultation and the lab report.

For examinations with an increased effort of analyses or a more specialized report, please contact us for the preparation of a separate agreement, as the increased effort causes higher costs. Our prices are cost prices and are subject to the statutory value added tax (currently 19 %). The value added tax must also be charged for orders from abroad, since our services do not qualify as export goods.

### **Terms of Payment**

The client agrees to pay an advance of 30 per cent of the order volume on receipt of our confirmation of order. If the order is cancelled not less than two weeks before the agreed lab date the advance will be returned.

The remainder is due on receipt of our invoice. Payment is due within 14 days or 30 days as invoiced. Payments from abroad must be free of charges. We reserve the right to withhold the lab report until payment has been received.

### **Results**

We supply a written lab report with the findings, photographs and an assessment of the samples (coded samples are assessed and analysed comparatively). The lab report is prepared within four weeks of the analysis. Statements in the report are made to the best of our knowledge and belief, and are in line with the latest research. They relate only to the received samples and allow no general conclusions. Water supplies are subject to fluctuations in quality depending on the time of sampling, so no conclusions about the long-term quality of the water or its origins can be drawn from the results of our investigations of samples. A generalization can only be made after investigation of a representative number of samples. More information on the possibilities and limits of the drop picture method can be found in the introduction above. Decoding of coded water samples should be made known to us by the client after receipt of the lab report.

### **Copyright**

The text and photographs in the lab report are for the client's personal use. The Institute of Flow Sciences retains the copyright of the report and photographs. Publication or use in commercial advertising of results and photographs requires a separate written agreement specifying the scope, content and duration of the right of utilization and the payment due. If our copyright is breached we are entitled to demand cessation and damages. We may charge three times the fee for the investigation to cover damages without affecting any

larger claim for damages or other legal claim.

The Institute of Flow Sciences is entitled to use the results as anonymous examples in scientific publications unless otherwise stated in the confirmation of order. Third parties will not be given access to the lab report.

### **Storage and Return of Samples**

Water samples and packaging will only be returned to the client if this is specifically requested and the costs are covered. They will be kept for one month after completion of the lab report.

### **Applicability and Jurisdiction**

These Conditions for Analysis are part of the contract for every investigation. Any deviations or additions must be stated in writing when the order is made, and confirmed by us. The law of the Federal Republic of Germany shall apply exclusively. The place of jurisdiction for disputes arising from this contract is Bad Säckingen.

Earlier versions of these Conditions for Analysis lose their validity upon publication of this version.

### **Literature:**

Schmidt, D. (2014): Life Forces - Formative Forces: Researching the Formative Energy of Life and Growth, Stuttgart, Germany.